

FIG.1

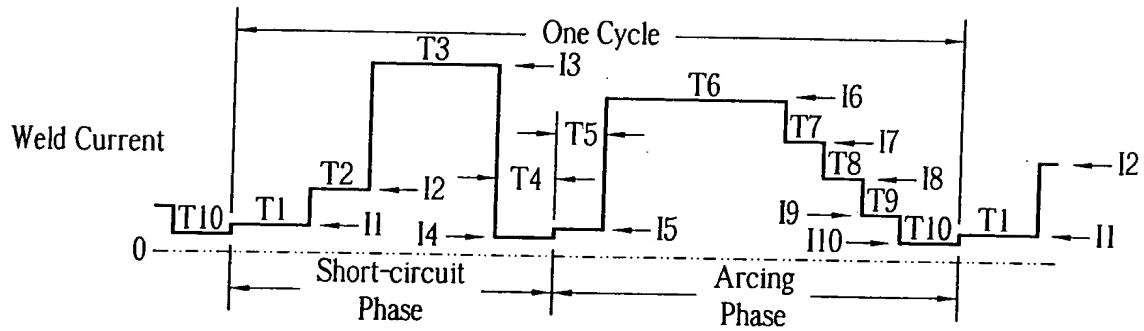


FIG. 2

| Segment Number | Current (Amps) | Time (msec) | Trigger |
|----------------|----------------|-------------|------------------|
| 1 | I1 | T1 | T10 (completion) |
| 2 | I2 | T2 | Prior |
| 3 | I3 | T3 | Prior |
| 4 | I4 | T4 | Prior |
| 5 | I5 | T5 | Prior |
| 6 | I6 | T6 | Prior |
| 7 | I7 | T7 | Prior |
| 8 | I8 | T8 | Prior |
| 9 | I9 | T9 | Prior |
| 10 | I10 | T10 | Prior |

FIG. 3

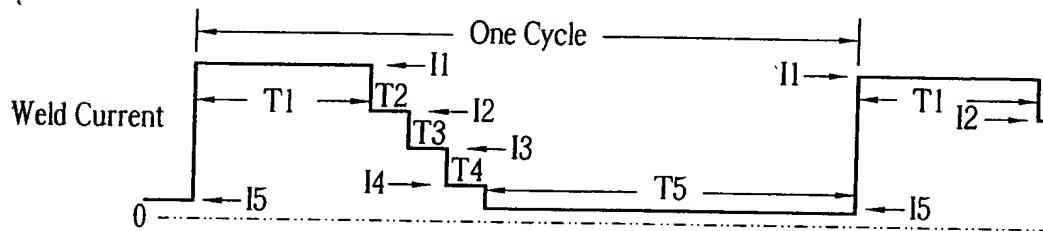


FIG. 4

| Segment Number | Current (Amps) | Time (msec) | Trigger |
|----------------|----------------|-------------|-----------------|
| 1 | I1 | T1 | T5 (completion) |
| 2 | I2 | T2 | Prior |
| 3 | I3 | T3 | Prior |
| 4 | I4 | T4 | Prior |
| 5 | I5 | T5 | Prior |

FIG. 5

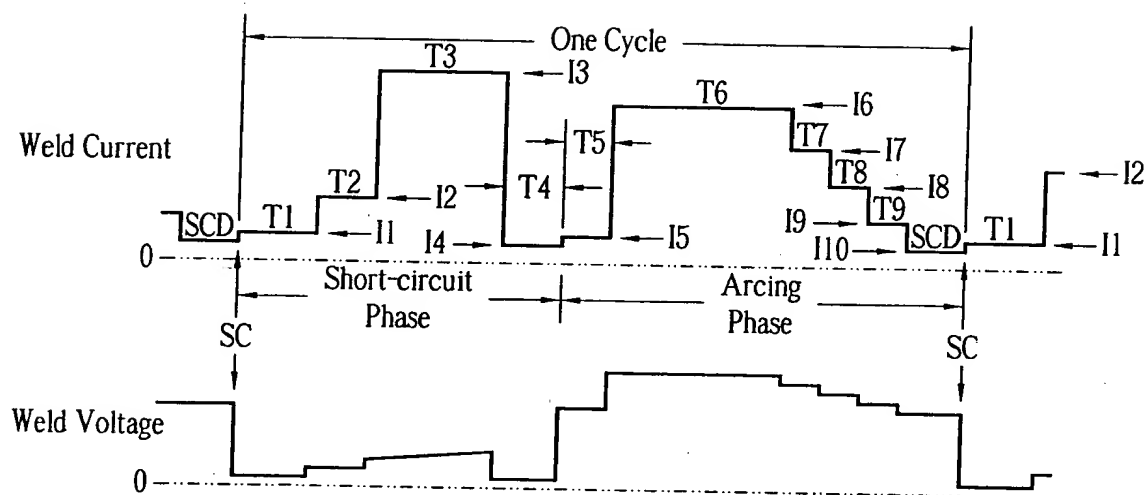


FIG.6

Table 2 — Enhancement 1

| Segment Number | Current (Amps) | Time (msec) | Trigger |
|----------------|----------------|-------------|---------|
| 1 | I1 | T1 | SC |
| 2 | I2 | T2 | Prior |
| 3 | I3 | T3 | Prior |
| 4 | I4 | T4 | Prior |
| 5 | I5 | T5 | Prior |
| 6 | I6 | T6 | Prior |
| 7 | I7 | T7 | Prior |
| 8 | I8 | T8 | Prior |
| 9 | I9 | T9 | Prior |
| 10 | I10 | SCD | Prior |

FIG.7

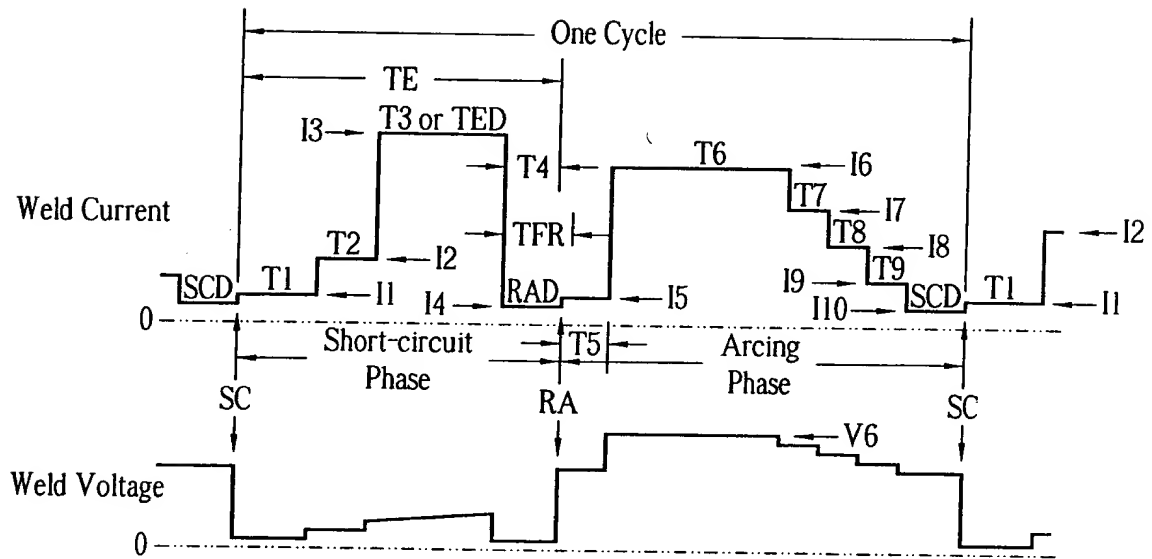


FIG.8

Table 3 -- Enhancement 3

| Segment Number | Current (Amps) | Time (msec) | Trigger |
|----------------|----------------|-----------------|-------------------|
| 1 | I1 | T1 | SC |
| 2 | I2 | T2 | Prior |
| 3 | I3 | T3 or TED | Prior |
| 4 | I4 | T4, RAD, or TFR | Prior or TE-T4 |
| 5 | I5 | T5 | Prior, RA, or TFR |
| 6 | I6 | T6 | Prior |
| 7 | I7 | T7 | Prior |
| 8 | I8 | T8 | Prior |
| 9 | I9 | T9 | Prior |
| 10 | I10 | SCD | Prior |

FIG.9

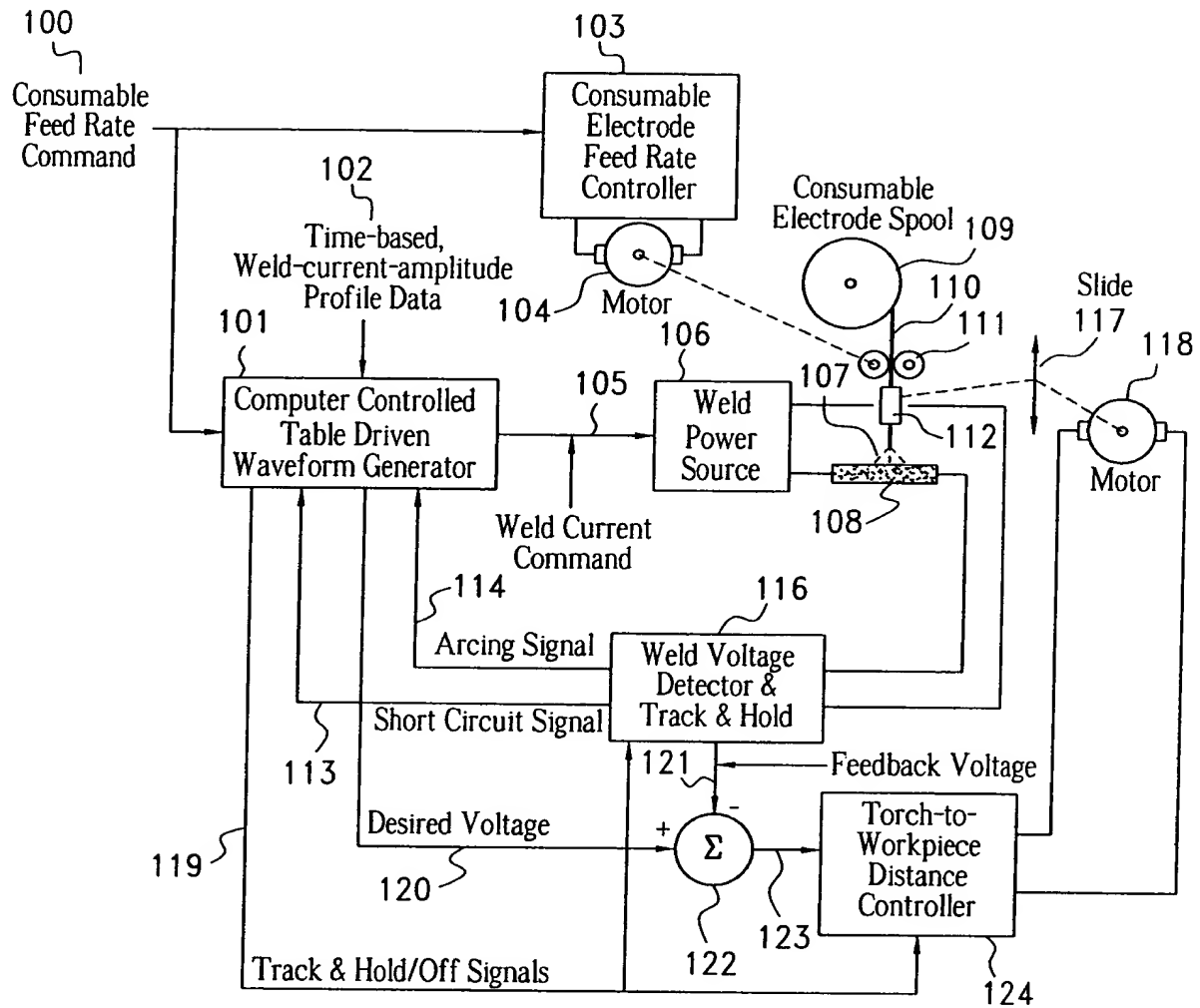


FIG.10

| Segment Number | Current (Amps) | Time (msec) | Trigger | Distance Control Voltage(Volts) |
|----------------|----------------|-----------------|-------------------|---------------------------------|
| 1 | I1 | T1 | SC | OFF |
| 2 | I2 | T2 | Prior | OFF |
| 3 | I3 | T3 or TED | Prior | OFF |
| 4 | I4 | T4, RAD, or TFR | Prior or TE-T4 | OFF |
| 5 | I5 | T5 | Prior, RA, or TFR | OFF |
| 6 | I6 | T6 | Prior | V6 |
| 7 | I7 | T7 | Prior | OFF |
| 8 | I8 | T8 | Prior | OFF |
| 9 | I9 | T9 | Prior | OFF |
| 10 | I10 | SCD | Prior | OFF |

FIG.11

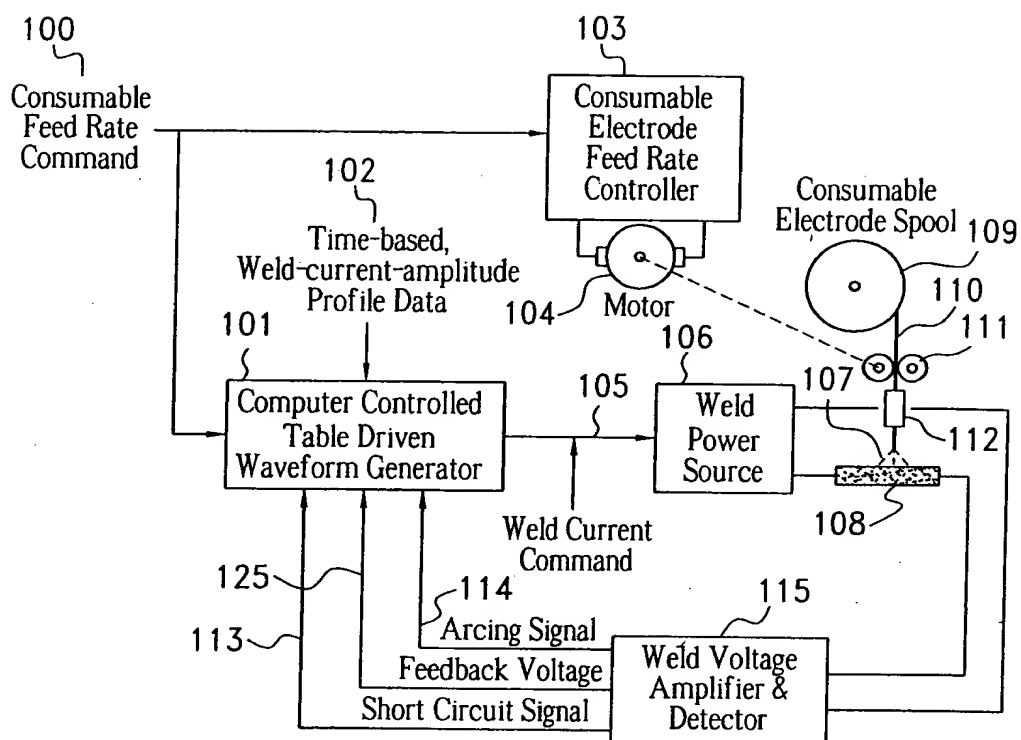


FIG.12

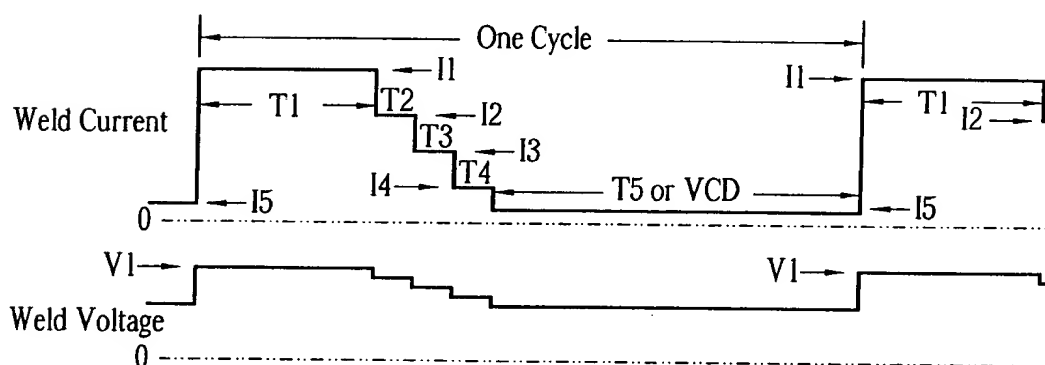


FIG.13

Table 5 – Enhancement 8 for Pulsed-spray Processes

| Segment Number | Current (Amps) | Time (msec) | Trigger | Weld Voltage (Volts) |
|----------------|----------------|-------------|---------|----------------------|
| 1 | I1 | T1 | VCD | V1 |
| 2 | I2 | T2 | Prior | OFF |
| 3 | I3 | T3 | Prior | OFF |
| 4 | I4 | T4 | Prior | OFF |
| 5 | I5 | T5 or VCD | Prior | OFF |

FIG.14